

IN THE DRAWINGS

The attached sheet of drawings includes changes to the Figure. This sheet, which includes the Figure, replaces the original sheet including Figure 1.

Attachment: Replacement Sheet

REMARKS

The rejection of Claims 1, 2, 4-8 under 35 U.S.C. §103(a) as unpatentable over U.S. 3,379,500 (Albanese et al), is respectfully traversed.

Albanese et al is an example of prior art described in the specification herein, at page 2, lines 13-18, especially lines 15-16, and in Table 1, second column at page 3. Said Table 1 lists the broad, and below it the preferred, ranges for various ratios (although Albanese et al discloses their broad range for $O_2/(O_2 + N_2)$ as > 0.21 to 0.4). Thus, while Albanese et al's ratio for CH_4/NH_3 overlaps in its broadest embodiment the presently-recited ratio range of 0.95 to 1.05 , Albanese et al prefers a corresponding range of 1.3 to 1.1 , which is outside the presently-recited range. In addition, in all of the examples of Albanese et al, i.e., Examples 1-7, the ratio of CH_4/NH_3 is always at least 1.15 .

The Examiner admits that Albanese et al fail to disclose a "molar ratio of ammonia to the sum of oxygen and nitrogen obeys the following relationship: $Y=m \cdot X-a$ wherein: $Y=[NH_3]/[N_2+O_2]$; $X=[O_2]/[N_2+O_2]$; $m=1.25$ to 1.40 ; and $a = 0.05$ to 0.14 ". This equation, recited in present Claim 1, covers a narrow band of starting gas compositions, as exemplified by the boundary lines G1 and G2 in the Figure and described at pages 7 and 8 of the specification.

The Examiner holds that it would have been obvious "to have determined by experimentation and mathematical methods the relationship between the concentrations of ammonia and oxygen as instantly claimed since this is a very common and known method of comparison used widely in the art."

In reply, this is a conclusion without any factual underpinnings. The applied prior art neither discloses nor suggests any relationship between the ratio of ammonia to the combination of nitrogen and oxygen, to the ratio of oxygen to the combination of nitrogen and oxygen, let alone the presently-recited relationship of $Y=M \cdot X-a$, wherein M and a are as

defined. Moreover, were one skilled in the art to experiment based on the disclosure of Albanese et al, such experimentation would begin with the preferred ratio range for CH_4/NH_3 , and the examples thereof, which range is outside the terms of the present claims. Without the present disclosure as a guide, one skilled in the art would not have arrived at the relationships required by the present claims.

Claim 6 is separately patentable because Albanese et al neither discloses nor suggests calculating and controlling the volume flow for ammonia and methane or the methane-containing natural gas as a function of the molar ratio $X=\text{O}_2/(\text{N}_2+\text{O}_2)$ using a process control system. While the Examiner relies on the disclosure in Albanese et al at column 3, lines 35-40, this disclosure does not support the Examiner's finding.

For all the above reasons, it is respectfully requested that the rejection be withdrawn.

The rejection of Claims 1, 2 and 4-8 under the judicially created doctrine of obviousness-type double patenting over Claims 1-7 of U.S. 6,743,407 (parent patent), is respectfully traversed. Indeed, the rejection is now moot in view of the Terminal Disclaimer **submitted herewith** over the parent patent. Accordingly, it is respectfully requested that the rejection be withdrawn.

The objections to Claim 1 and to the specification, are respectfully traversed. Indeed, the objections are now moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that they be withdrawn.

The objection to the drawing is now moot in view of the submission of the Replacement Sheet. Accordingly, it is respectfully requested that it be withdrawn.

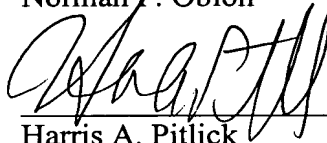
Application No. 10/733,274
Reply to Office Action dated March 3, 2005

All of the presently pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

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MAIER & NEUSTADT, P.C.

Norman F. Oblon

A handwritten signature in dark ink, appearing to read 'Harris A. Pitlick', is written over a horizontal line.

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